

Supporting Federal Agencies in Meeting Energy Goals in Buildings

The US Department of Energy's Federal Energy Management Program (FEMP) works with key individuals to accomplish energy change within organizations by bringing expertise from all levels of project and policy implementation to enable federal agencies to meet energy-related goals and provide energy leadership to the country. FEMP relies on Oak Ridge National Laboratory (ORNL) and other national laboratories to carry out its activities and provide expert assistance to federal agencies working to meet their energy goals through energy efficiency and renewable energy projects in buildings and fleets.

As a key contributor to the program since its inception, ORNL brings together experienced teams and capabilities to provide centralized project development services to FEMP. In doing so, ORNL supports the following FEMP activities:

- Financed Federal Energy Projects:** ORNL has supported FEMP's Energy Savings Performance Contracts (ESPC) program since the award of the first Indefinite Delivery, Indefinite Quantity (IDIQ) contracts in 1996 and is now FEMP's primary laboratory for the ESPC program. Responsibilities include project development services, technical support, and analysis of program- and project-level data.

During the ESPC performance period, ORNL supports FEMP's Life of Contract/Quality Assurance program, which ensures that equipment is in place and functional, that all guaranteed savings are being realized, and that all parties involved in the ESPC are upholding their contractual obligations. ORNL also supports implementation of FEMP's Utility Energy Service Contracts, in which utility companies provide the analysis, design, installation, and financing (when necessary) of energy conservation projects.
- Technical Guidance and Assistance:** ORNL provides a wide range of technical guidance and assistance services for a variety of customers. Technical assistance is a key feature of nearly all of ORNL team activities, and their energy and technology experts have applied their skills to energy projects and federal facilities worldwide.

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- Institutional Change Guidance and Assistance:** ORNL teams with other national laboratories to help organizations better achieve and maintain their energy and sustainability goals. This guidance and assistance includes analyzing how organizational, social, and behavioral elements can enhance the effectiveness of energy-related policies, programs, and technologies in the context of broader, mission-related goals and responsibilities.

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ORNL supports DOE's annual Excellence In Energy Awards that FEMP awards to innovative student energy projects at the Academies of the Army, Navy, Air Force, and Merchant Marines.

Key Accomplishments

- ORNL led a team that reorganized and streamlined FEMP's support to federal agencies during the ESPC development process, ensuring each project receives the same package of well-defined and well-documented support services from federal project executives, project facilitators, and other technical resources.
- A recent report by ORNL, *Beyond Guaranteed Savings: Additional Cost Savings Associated with ESPC Projects* (ORNL/TM-2013/108), provides evidence that ESPCs may actually reduce an agency's energy and energy-related operating costs by 196% of the guaranteed savings. Thus, even with the majority of guaranteed savings paid to an Energy Service Company (ESCO), agencies realize significant cost savings over the life of the equipment installed—of a magnitude equal to the guaranteed savings itself.
- In support of FEMP's ESPC ENABLE program, which provides a standardized and streamlined process for small federal facilities to install targeted, energy conservation measures in six months or less, ORNL developed an investment grade audit tool to calculate energy savings from energy conservation measures in for lighting; water; heating, ventilating, and air conditioning (HVAC) controls; HVAC equipment; and solar photovoltaics. This tool is the primary means by which guaranteed savings are specified in ENABLE projects.

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